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ECOLAB USA INC. MAIL STOP ESC-F7, 655 LONE OAK DRIVE EAGAN, MN 55121			OGDEN JR, NECHOLUS	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KIM R. SMITH

Appeal 2009-011086
Application 10/825,389
Technology Center 1700

Decided: June 30, 2010

Before JEFFREY T. SMITH, BEVERLY A. FRANKLIN, and
JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

FRANKLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from the Examiner's
rejection of claims 1 and 3-9. We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

Claim 1 is representative of the subject matter on appeal and is set forth below:

1. A soap product consisting of:

(a) a non-propellant dispenser comprising a liquid retaining container and a foam dispenser head; and

(b) liquid soap present in the container, the foam dispenser head fluidly connected to the liquid soap and the liquid soap composition consisting of:

(1) an alkali salt of a C₆ to C₂₄ fatty acid; and

(2) optionally, an additional ingredient selected from the group consisting of water, antioxidants, water softening agents, preservatives, solubilizers, color, fragrances, pH modifiers and mixture thereof,

wherein the liquid soap has a viscosity less than 100 cps.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Uehira	5,271,530	Dec. 21, 1993
Gross	5,990,074	Nov. 23, 1999

THE REJECTION

Claims 1 and 3-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Gross in view of Uehira.

ISSUE

Did the Examiner err in determining the applied art suggests all elements of the claims and is combinable based upon proper motivation and

a reasonable likelihood of success? We answer this question in the negative.

FINDINGS OF FACT, PRINCIPLES OF LAW, and ANALYSIS

Appellant first argues that the applied art does not teach the claimed features recited in claims 1 and 3-9. Br. 10-11.

Appellant argues that Gross is directed to a process for producing soap from a mixed feedstock of at least one triglyceride and at least one free fatty acid. Appellant argues that the quantity of triglyceride present is such that "the glycerin produced from its saponification with strong alkali does not exceed about 6 wt. % of the finished soap product." Br. 11.

Appellant submits that this level of glycerin in the final product produced by the method of Gross is important because "of various handling problems as well as undesired plasticity A 6 wt. % glycerin content will generally bring about a relatively translucent and plastic bar." Br. 11.

We are not persuaded that the above teachings of Gross differentiate from the components recited in Appellant's claim 1. That is, we agree with the Examiner's response made on page 5 of the Answer. Therein, the Examiner states:

The examiner contends that the feedstock employed by Gross et al which yields less than 6% by weight of glycerin is a feature disclosed in Gross et al, but it is not outside the scope of the claimed invention. Specifically appellant's call out a broad range of fatty acid soaps such as C6-C22 and Gross et al specifically suggest C16 and C18, well within the claimed limitation. Further the amount of glycerin produced by C16 and C18 fatty acid is inherent to the claimed invention which clearly permits these carbon chain fatty acids as soap products.

Notably, Appellant does not specifically address the above-quoted Examiner's position. *See* particularly the Reply Brief. Also see the Specification, p.5, ll. 18-20.

Appellant then argues that Gross states that "'[a]ll of the specific examples relate to preparation of a solid soap product, the preferred bar,' but that the process is applicable to liquid soap products as well." Br. 11. Appellant argues that Gross is primarily directed to the preferred solid soap product, a bar, and it is silent with respect to how a liquid soap would be dispensed. Br. 11-12.

We are not convinced by the above-mentioned arguments, and agree with the Examiner's response made on page 5 of the Answer wherein the Examiner correctly states that Gross specifically teaches that the disclosed soap composition can be used for liquid soaps. Gross, col. 6, ll. 20-40. The Examiner recognizes that the details of such a liquid soap product is not specifically described in Gross, but that it is within the purview of one of ordinary skill in the art to prepare a liquid soap product according to the teachings of Gross. Ans. 6. We agree and note that in making their arguments, Appellant does not consider the perspective of one of ordinary skill in the art. In other words, Appellant has not convinced us that one of ordinary skill in the art would not have found it obvious to have made a liquid soap product, especially in view of the fact that Gross teaches the disclosed soap composition can be used for making liquid soaps. We refer to *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007) which states

The obviousness analysis cannot be confined by . . .
overemphasis on the importance of published articles and the
explicit content of issued patents. . . . In many fields it may

be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends.

In the instant case, there is little discussion in Gross of the details of the liquid soap disclosed that can be made according Gross, and we liken this to “little discussion of obvious techniques” as referred to in *KSR, supra*.

Appellant then argues that Gross does not teach a liquid soap having a viscosity of less than 100 centipose ("cps"). Appellant also argues that Uehira does not disclose a soap having a viscosity of less than 100 cps. Br. 12.

We agree with the Examiner's response made on pages 5-6 of the Answer. Therein, the Examiner states:

The examiner contends that the most comprehensive claims states C6-C24 fatty acid soap and optional ingredients. Gross et al, in examples 2 and 3 call out C16 and C18 fatty acid soaps and over 30% water before drying and states that said examples could be altered to produce liquid preparations. The examiner contends that in the liquid preparation, the skilled artisan would have reasonably construed to optimize the water content to satisfy any liquid preparation and therefore encompass a viscosity of less than 100 cps since Gross et al do not comprise any thickeners, polymers or viscosity adjusting agents to suggest otherwise. Therefore, it would have been with [sic, within] the purview of the artisan of ordinary skill to produce liquid soap products according to the claimed invention because Gross et al suggest said liquid preparations and does not include adjunct materials to suggest a thickened composition, where one of ordinary skill in the absence of a showing to the contrary would expect the compositions of Gross et al, when prepared in liquid form, to encompass characteristics such as less than 100 cps viscosities.

We also agree with the Examiner's position as stated on page 4 of the Answer that since the pump dispenser of Uehira forms soap formulations into foam, it would have been obvious to the skilled artisan that such formulations pumped would have a viscosity less than 100 cps since Gross teaches liquid preparation of soap products and Uehira forms liquid soap into foam soap products.

In other words, it is the Examiner's position that it would have been within the purview of the artisan to have formulated a liquid soap product in a manner to facilitate foam dispensing from the foam dispenser of Uehira, and that such a product would have a viscosity as claimed in order to be compatible with the dispenser of Uehira. Appellants do not address this position of the Examiner's.

Appellant argues that with respect to the foamable liquid for use with the disclosed pump of Uehira, Uehira states that "a surfactant or the like is added to impart foaming properties when mixed with air." Uehira, col. 4, ll. 50-55. Appellant argues that such hand soaps with foam enhancing additives are not the same as their claimed invention which consists of an alkali salt of a fatty acid and an optional ingredient wherein the optional ingredients included in the claimed soaps do not include additives such as synthetic anionic and amphoteric surfactants to enhance the foam. Appellant submits that their claimed liquid soap is therefore different from the foamable liquids disclosed by Uehira which require surfactants to impart foaming properties.¹ Br. 12-13.

¹ On page 7 of the Answer, the Examiner states that he cannot locate where Uehira teaches use of synthetic surfactants. However, on pages 2-3 of the

However, the fact that Uehira includes a “surfactant or the like” does not convince us of error in the Examiner’s position. Appellant has not offered evidence, for example, showing that it has been understood that a foam dispenser (of the kind, e.g., in Uehira) can only function when additives such as a synthetic anionic and amphoteric surfactants are included in the liquid soap product. To the contrary, Appellant’s Specification, on page 4, at lines 17-21, indicates that foam dispensers are known and function by creating foam by mixing air with the liquid being dispensed, where surfactants are added to “enhance” the foam. There is no indication that it has been known that a surfactant is necessary for a foam dispenser to dispense a liquid soap product having a foam consistency. On page 6 of the Answer, the Examiner emphasizes that he relied upon Gross for teaching the components of the claimed liquid soap product, which does not include a surfactant, and that he relied upon Uehira for teaching a foam dispenser.

With respect to claims 4 and 5, Appellant argues that Gross fails to disclose that the liquid soap is a mixture of soap and water (claim 4), or the claimed ratio of soap to water (claim 5). Appellant argues that since Gross is silent as to the characteristics of a liquid soap, Gross also fails to disclose any possible mixtures of a liquid soap and water. Br. 13.

We agree with the Examiner’s response made on page 7 of the Answer. Therein, the Examiner states:

The examiner contends and respectfully disagrees and directs appellant to examples 2 and 3 which clearly suggest over 30% water admixed with C16 and C18 fatty acid soaps for preparing solid soaps. Therefore, one of ordinary skill in the absence of unexpected results,

Reply Brief, Appellant refers to col. 4, ll. 50-55 of Uehira for such a teaching.

would expect the skilled artisan to include additional amounts of water in preparing liquid soaps thereby optimizing the ratio of soap to water to produce liquid compositions as suggested by Gross et al (col. 6, lines 30-38).

With respect to claims 6 through 9, Appellants argue that the applied art is silent about the claimed amounts of alkali salts and solids present when the soap is a mixture of soap and water. Appellant argues that the Examiner's position that the claimed amounts of these components would have been obvious in view of the soap products of Gross based solely on the fact that the same components are present in both Gross and the soap product of the instant invention is incorrect. Br. 13-14.

We agree with the Examiner's response made on page 7 of the Answer. Therein, the Examiner states:

The examiner asserts that Gross et al is silent with respect to the alkali salts content and solids content, however, Gross et al teach the specific alkali metal salts components such as sodium or potassium and further teach the specific fatty acid C16 or C18 as claimed in order to produce a fatty acid soap product. Therefore, in the absence of unexpected results one of ordinary skill would expect the soaps of Gross et al to have similar characteristics such as salts contents and solid contents as the claimed invention because Gross et al specifically suggest the fatty acid soaps and salts as claimed.

In other words, it is the Examiner's position that, absent evidence of unexpected results, the claimed amount would have been within the purview of the skilled artisan in formulating a liquid soap composition having the ingredients as taught by Gross, for facilitating dispensing from a foam dispenser of the kind in Uehira.

Appellants then argue that there is no motivation to combine Gross in view of Uehira. Appellant asserts that Gross is not specific regarding the

liquid soap (the characteristics of the liquid soap is not disclosed), including its viscosity. Appellant argues that Uehira is directed to foamable liquids having surfactants, and that Gross does not teach the use of surfactants. Appellant asserts that it would not have been obvious for one of ordinary skill in the art to dispense the soap of Gross through a foam dispenser in order to effectively deliver the soap. Appellant also argues that there is not any teaching that the liquid soap products disclosed in Gross would be capable of being foamed, with or without the addition of a surfactant or foam enhancing agent. Br. 14-15.

As discussed, *supra*, Appellant has not offered evidence that it has been known that a foam dispenser (of the kind, e.g., in Uehira) can only function when additives such as a synthetic anionic and amphoteric surfactants are included in the liquid soap product. We emphasize that, to the contrary, Appellant's Specification, on page 4, at lines 17-18, indicates that foam dispensers function by creating foam by mixing air with the liquid being dispensed. There is no indication that it has been known that a surfactant is necessary for the foam dispenser to dispense the liquid soap having a foam consistency. We therefore are unconvinced that there is no motivation to combine the references as the Examiner has done simply because the liquid soap composition in Uehira includes "a surfactant or the like" while Gross' liquid soap composition does not include one.

Appellant then argues that the combination of Gross and Uehira does not suggest Appellant's invention with a reasonable expectation of success. Appellant submits that there is no reasonable expectation of success to combine the soap product of Gross with the dispenser of Uehira. Br. 15-16. Appellant argues that Gross is directed to a process for producing a soap

product, preferably a bar of soap. Appellant argues that Uehira is directed to a foam dispensing device. Appellant submits that one of ordinary skill in the art would not have had a reasonable expectation of success that the liquid soaps produced by Gross would be capable of producing foam when used in the dispenser of Uehira. Appellant argues that there is no disclosure in Gross that a liquid soap produced by the methods disclosed therein would be capable of being foamed. Appellant also argues that Uehira states that foamable liquids for use with the dispenser disclosed therein have surfactants added to impart foam properties. Appellant argues that there is nothing in Gross that teaches or suggests the use of surfactants to increase the foaming properties of the disclosed soaps.

Appellant then argues that none of the rationales provided by the Supreme Court in *KSR v. Teleflex* are applicable to the presently claimed invention. Appellant discusses many different rationales (we do not repeat them here) and argues that none are applicable to the instant rejection. Br. 16-19.

We are not convinced by the aforementioned arguments. Again, Appellant has not offered evidence, for example, that it has been known that a foam dispenser (of the kind, e.g., in Uehira) can only function when additives such as a synthetic anionic and amphoteric surfactants are included in the liquid soap product. We therefore are unconvinced that there is not a reasonable likelihood of success to combine the references as the Examiner has done to arrive at Appellant's claimed invention, whereby one of ordinary skill in the art is employing "inferences and creative steps that a person of ordinary skill in the art would employ". *KSR*, at 417-18 (2007).

In view of the above, we affirm the rejection.

CONCLUSIONS OF LAW

The Examiner did not err in determining the applied art suggests all elements of the claims and is combinable based upon proper motivation and a reasonable likelihood of success.

DECISION

The rejection is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED

ssl

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